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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/07/2005

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EXAMINER

SAIN, GAUTAM

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,084	GERGIC ET AL.	
	Examiner	Art Unit	
	Gautam Sain	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1) This is a Final Rejection in response to Amendments/Remarks filed by applicant on 9/22/05.
- 2) Examiner withdraws the Claim Objection for claim 33 because Applicant amended to correct the grammar.
- 3) Examiner withdraws the rejection under 35 USC 101, for claims 1-12 and 28-32 because the Applicant either amended the claims to set forth a physical structure (ie., a computer) and/or presented arguments that the claims are executed on a hardware structure.

Claim Rejections - 35 USC § 103

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4-1) Claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 33, 34 are rejected under 35 U.S.C.

103(a) as being unpatentable over Voice extensible Markup Language (voiceXML) version 1.0 (May 5, 2000; WWW Consortium)(hereinafter "Vxml"), in view of Dodrill et al (US 6578000, filed Apr 28, 2000).

Regarding claim 1, Vxml teaches creating one or more reusable VoiceXML dialog components (ie., create reusable components)(section 5, subdialogs heading).

Vxml teaches creating ... dialog components (ie., where field terms invokes objects with various parameters)(sec 6.1, Field items heading).

Vxml does not expressly teach, but Dodrill teaches creating a Voice XML ... associated parameter object (ie., dynamically generated HTML form ... developed XML-based voice web application using previously defined parameters)(col 3, line 60 – col 4, line 38).

Vxml does not expressly teach,
Wherein the step of creating a reusable voiceXML dialog component comprises creating a re-entrant reusable voicexml dialog component that allow reusable voicexml dialog component to be one of initiated, interrupted, inspected or resumed with a partially filled result object or state object. However Vxml does teach creating a reusable library of dialogs shared among many applications with sessions where the user starts to interact with a voice interpreter context (see vxml, section 3, 3.1, 3.2) and voicexml elements for “<initial>,” which declares initial logic upon entry into a (mixed-initiative) form (see vxml, section 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vxml to include developing XML-based voice web application using previously defined parameters and dynamically generating web pages as taught by Dodrill, providing the benefit of a browser-based arrangement for developing voice enabled web applications using extensible markup language documents (Title), further to include initializing voicexml elements upon entry into a mixed-initiative from as taught by Vxml, providing the benefit of bringing the advantages of web-based development and content delivery to interactive voice response applications (voicexml, abstract).

Regarding claim 2, Vxml does not expressly teach but Dodrill teaches populating ... values (ie., input application parameters into the entry fields)(col 4, lines 20-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vxml to include inputting application parameters into entry fields as taught by Dodrill, providing the benefit of a browser-based arrangement for developing voice enabled web applications using extensible markup language documents (Title).

Regarding claim 3, Vxml teaches invoking ... elements (ie., creating reusable components ...)(section 5, Subdialog heading).

Regarding claim 4, Vxml teaches parameter object ... object (ie., specify a block of ECMAScript)(col 4, lines 20-21).

Regarding claim 5, Vxml teaches building ... documents (ie., create a reusable library in voicexml document where dialogs are in the document)(sec 3; fig 2, 3 – vxml documents – Application root, main document).

Regarding claim 6, Vxml teaches building ... components (ie., create a reusable library of dialogs)(section 3.1, 3.2).

Regarding claim 7, Vxml teaches default prompts (ie., a platform-specific document message to prompt users)(section 5, Main Document example), object-specific resources (ie., containing resources relevant to object)(section 14.5 – table, see archive object), constructors ... parameters (ie., attributes have either default or specified fields by the last user input)(section 15, Filled heading), and method for manipulating parameter content (ie., retrieval of the content)(section 12.1, see fetchint).

Combining these elements would have been obvious to one of ordinary skill in the art at the time of the invention because the vxml reference teaches all of the elements providing the benefit of reusable components to take advantages of web-based development and content delivery to interactive voice response application (vxml, Abstract section).

Regarding claim 8, Vxml teaches code ... grammar (ie., fields using explicit grammars)(section 14.1.2).

Regarding claim 10, Vxml teaches re-entrant ... initiative (ie., mixed-initiative conversation”)(Abstract, 6.2.2, <initial>).

Regarding claim 11, Vxml teaches code ... service objects (ie., interact with custom extension; “platform specific objects”)(section 4 table, <object>; section 14.5) .

Regarding claim 12, Vxml teaches a subdialog ... object element (ie., form item includes <subdialog> and form for weather information service calls objects within it)(section 6.4).

Regarding claim 33, Vxml does not expressly teach, but Dodrill teaches creating a Voice XML ... associated parameter object (ie., dynamically generated HTML form ... developed XML-based voice web application using previously defined parameters)(col 3, line 60 – col 4, line 38).

Vxml does not expressly teach, but Dodrill teaches a first database ... intermediate voiceXML page (ie., application server with SQL interface)(col 9, lines 1-5).

Vxml does not expressly teach, but Dodrill teaches a second database ... requesting client (ie., inserting parameters into entry field for display of the form by voice enabled browser (Title) with XML tags)(col 10, lines 17-37; fig 5A).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vxml to include developing XML-based voice web application using previously defined parameters and dynamically generating web pages with SQL database interfaces for inserting values into entry field for display of the form by voice enabled browser the as taught by Dodrill, providing the benefit of a browser-based arrangement for developing voice enabled web applications using extensible markup language documents (Title).

Regarding claim 34, vxml teaches beans ... engine (ie., Java Speech Grammar Format in use with voiceXML grammar elements; it would have been obvious that java elements would be a part of the voiceXML dialog as java is incorporated at least by reference)(Appendix D).

4-2) Claims 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voice extensible Markup Language (voiceXML) version 1.0 (as cited above), in view of Sorsa (US 6424945, filed Dec 1999), further in view of Dodrill'564 (US 06490564, filed Feb 2000).

Regarding claim 13, vxml does not expressly teach, but Sorsa teaches a voiceXML ... document (ie., interpreting a markup language .. voicexml)(col 5, lines 62-67).

Vxml teaches a library comprising ... associated parameter object (ie., reusable library of dialog shared among many applications)(section 3.1).

Vxml does not expressly teach,
Wherein the step of creating a reusable voiceXML dialog component comprises creating a re-entrant reusable voicexml dialog component that allow reusable voicexml dialog component to be one of initiated, interrupted, inspected or resumed with a partially filled result object or state object. However Vxml does teach creating a reusable library of dialogs shared among many applications with sessions where the user starts to interact with a voice interpreter context (see vxml, section 3, 3.1, 3.2) and voicexml elements for “<initial>,” which declares initial logic upon entry into a (mixed-initiative) form (see vxml, section 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify vxml to include interpreting a markup language such as voicexml as taught by sorsa, providing the benefit of having an improved system for providing IVR services, where accurate speech recognition is achieved having modest processing capability and memory resources, where the speech recognition uses grammars having limited size (Sorsa, col 2, lines 26-31), further to include initializing voicexml elements upon entry into a mixed-initiative form as taught by Vxml, providing the benefit of bringing the advantages of web-based development and content delivery to interactive voice response applications (voicexml, abstract).

Regarding claim 14 Vxml teaches reusable ... elements (ie., creating reusable components ...)(section 5, Subdialog heading).

Regarding claim 15, Vxml teaches parameter ECMAScript (ie., specify a block of ECMAScript)(col 4, lines 20-21).

Regarding claim 16, Vxml teaches *default prompts* (ie., a platform-specific document message to prompt users)(section 5, Main Document example), *object-specific resources* (ie., containing resources relevant to object)(section 14.5 – table, see archive object), *constructors ... parameters* (ie., attributes have either default or specified fields by the last user input)(section 15, Filled heading), and *method for manipulating parameter content* (ie., retrieval of the content)(section 12.1, see fetchint). Combining these elements would have been obvious to one of ordinary skill in the art at the time of the invention because the vxml reference teaches all of the elements providing the benefit of reusable components to take advantages of web-based development and content delivery to interactive voice response application (vxml, Abstract section).

Regarding claim 17, vxml teaches library of ... repository, or both (ie., document server replies with voicexml document)(section 2.1, 2.2, see figure 1).

Regarding claim 18, vxml teaches default grammars ... components (ie., audio clip with a prompt)(section 4 table).

Regarding claim 19, vxml teaches library further ... dialog components (ie., standard session variables are reusable and can be stored in the library)(section 9.4).

Regarding claim 20, vxml teaches reusable ... languages (ie., attributes of <vxml> include language and local type)(section 5).

Regarding claim 21, vxml teaches repository ... functions (ie., subdialogs permit reuse of common dialog including ECMAScript object)(section 14.4).

Regarding claim 22, vxml teaches repository ... processor platform (ie., audio clip within a prompt)(section 4, table <audio> element).

Regarding claim 23, vxml does not expressly teach, but Sorsa teaches voicexml ... browser (ie., voicexml language used for speech enabled browser)(col 5, lines 64-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify vxml to include voicexml used for speech enabled browsers as taught by sorsa, providing the benefit of having an improved system for providing IVR services, where accurate speech recognition is achieved having modest processing capability and memory resources, where the speech recognition uses grammars having limited size (Sorsa, col 2, lines 26-31).

Regarding claim 24, vxml does not expressly teach, but Sorsa teaches speech application ... multi-modal browser (ie., audio input devices and voice browser)(fig 2, item 102, 204, 120; col 5, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify vxml to include voicexml used for speech enabled browsers as taught by sorsa, providing the benefit of having an improved system for providing IVR services, where accurate speech recognition is achieved having modest processing capability and memory resources, where the speech recognition uses grammars having limited size (Sorsa, col 2, lines 26-31).

Regarding claim 26, Vxml teaches re-entrant ... initiative (ie., mixed-initiative conversation”)(Abstract, 6.2.2, <initial>).

Regarding claim 27, Vxml teaches reusable ... data access (ie., must be able to receive speech recognition grammar data dynamically ...)(section 2.5).

Regarding claim 28, Vxml does not expressly teach, but Sorsa teaches receiving ... document (ie., voice browser interpreting a markup language ... voicexml)(col 5, lines 62-65).

Vxml teaches invoking a reusable ... voiceXML document (ie., subdialogs for invoking new interactions ... create a reusable library of dialogs shared among applications)(section 3.1, Dialogs and Subdialogs).

Vxml in view of Sorsa does not expressly teach, but Dodrill'564 suggests *Dynamically compiling a grammar for the invoked reusable voicexml dialog component* (ie., the XML documents are then stored for execution of the voice application by an application server in the application runtime environment. Hence, web based voice applications can now be developed using open-source XML document development tools such as forms-based document development systems, as opposed to development environments that require compiling applications written in programming languages such as C, C++, PERL, Java, etc.; the examiner interprets execution by the application server in the application runtime environment as equivalent to dynamic compilation of markup language components)(col 5, lines 60-67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify vxml to include a voice browser interpreting a markup language

such as voicexml as taught by sorsa, providing the benefit of having an improved system for providing IVR services, where accurate speech recognition is achieved having modest processing capability and memory resources, where the speech recognition uses grammars having limited size (Sorsa, col 2, lines 26-31), further to include execution of the voice application by an application server in the application run environment as taught by Dodrill'564, providing the benefit of voice enabled web can now be developed by individuals without the necessity of programming language experience (Dodrill'564, col 6, lines 1-10) .

Regarding claim 29, Vxml teaches instantiating ... object (ie., specify a block of ECMAScript)(col 4, lines 20-21).

Regarding claim 30, vxml teaches maintaining ... parameter objects (ie., reusable library of dialogs for voicexml documents)(section 3.1; section 4, table with <parm> elements).

Regarding claim 31, vxml teaches maintaining ... prompts (ie., default scope of the form's grammars...)(section 6, forms table)(play a field prompt when the field is revisited ... it would have been obvious that the prompt must be stored in order to replay it)(section 4, Voicexml <reprompt>).

Regarding claim 32, Vxml does not expressly teach, but Sorsa teaches receiving ... document (ie., voice browser interpreting a markup language ... voicexml)(col 5, lines 62-65).

Vxml teaches invoking a reusable ... element; instantiating ... voiceXML document (ie., subdialogs for invoking new interactions ... create a reusable library of dialogs shared among applications)(section 3.1, Dialogs and Subdialogs).

Vxml in view of Sorsa does not expressly teach, but Dodrill'564 suggests *Dynamically compiling a grammar for the invoked reusable voicexml dialog component* (ie., the XML documents are then stored for execution of the voice application by an application server in the application runtime environment. Hence, web based voice applications can now be developed using open-source XML document development tools such as forms-based document development systems, as opposed to development environments that require compiling applications written in programming languages such as C, C++, PERL, Java, etc.; the examiner interprets execution by the application server in the application runtime environment as equivalent to dynamic compilation of markup language components)(col 5, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify vxml to include a voice browser interpreting a markup language such as voicexml as taught by sorsa, providing the benefit of having an improved system for providing IVR services, where accurate speech recognition is achieved having modest processing capability and memory resources, where the speech recognition uses grammars having limited size (Sorsa, col 2, lines 26-31), further to include execution of the voice application by an application server in the application run environment as taught by Dodrill'564, providing the benefit of voice enabled web can

now be developed by individuals without the necessity of programming language experience (Dodrill'564, col 6, lines 1-10).

Response to Arguments

Applicant's arguments filed 9/22/05 have been fully considered but they are not persuasive. First, Applicant argues that the combination of references does not teach creating a re-entrant reusable voicexml dialog component that allow reusable voicexml dialog component to be one of initiated, interpreted, inspected, or resumed with a partially filled result object or state object (see page 8 and 9). The Examiner disagrees because the combination of the references renders the claimed invention as obvious to one of ordinary skill in the art at the time of the invention, as evidenced by the reference Ball et al (US 6240391, filed May 25, 1999), which is introduced as evidence to show motivation to combine at the time of the invention. Specifically, Ball shows elements fragments are used to re-assemble the fragments of the message (col 1, line 65 – col 2, line 3). This shows that creating reusable components for a voicemail system using voicexml were well known in the art at the time of the invention. Second, Applicant argues that the cited references do not teach dynamically compiling a grammar for the invoked reusable voicexml dialog component. The Examiner disagrees and because the combination of the references renders the claimed invention as obvious to one of ordinary skill in the art at the time of the invention, as evidenced by the reference Brown et al (US 6604075, provisional application filed May 20, 1999), which is introduced as evidence to show motivation to combine at the time of the invention. Specifically, Brown shows a grammar compiler to generate a grammar specification language supplied as

input to a grammar compiler (col 2, lines 59-64). This shows that grammar for voicemail dialog components were well known in the art at the time of the invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam Sain whose telephone number is 571-272-4096. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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GS

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
12/5/2005